

Use Cases

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1 Introduction

1.1 Purpose of the document

This document is an extension of D4.1 and includes use cases derived from the results of the user requirements.

1.2 Definitions, acronyms and abbreviations

CiMCareInMovementUse CaseA use case is a list of steps, typically defining
interactions between an actor and a system

PEU

Primary End User, care recipient as defined in D4

1.3 Relationship to other deliverables

As mentioned above this document is an extension of D4.1. This document does not deal with system requirements, system architecture or the user interface concept which are handled in separate documents.

1.4 Structure of the document

This document starts with the target groups affected by the use cases. Then the components of the planned CiM system are listed. In Chapter 4 the functions/applications are assigned to actors. Chapter 5 Contains the CiM use cases.

2 Actors

In the following the target groups affected by the use cases are described.

Directly affected:

- Primary end users (care recipients)
- Formal carers (employees of social care institutions)
- Family carers (informal carers, family members or well-known persons)
- Volunteers (community members, that provide help in spare time)
- CiM Administrators (CiM consortium members setting up the system)
- Tutors/Moderators/Mentors (formal carers (from Hilfswerk or ALDIA) dealing in depth with the system)
- Authors (CiM Administratorscreating content for the education system)

Indirect affected:

- People being called in case of an emergency
- Family doctor (confirms ability to perform exercises)

3 Components

- Wearable (primary end users):
 - \circ (GSM) depends on wearable
 - \circ (GPS) depends on wearable

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- o Accelerometer
- Heart rate (blood pressure, pulse meter only if a cheap wearable is used)
- **Tablet** (primary end users can also be used by family carers, volunteers and maybe formal carers):
 - o GSM/3G/LTE
 - SIM Cards
- Webbrowser on PC, tablet or smartphone (not financed by the project; family carers, volunteers and formal carers):
 - Agreed browser Chrome
 - Field trial kit for ALDIA (5 x) and HSa (5 x)
 - Hand Grip Dynamometer

4 Functions/Applications per Actor

- 4.1 Motion Promotion Service
 - Training plans (including possibility to plan fixed regular times for training; possibility to alternate exercises; possibility for reclassification if fitness level in- or decreases; possibility to define targets for each person/group in order to be able to later reward them)

 Author
 (webbrowser)
 - Guided training instructions (video and written description)
 - Primary end users (tablet)
 - Formal carers (tablet of the PEU)
 - Family carers (tablet of the PEU)
 - Volunteers (tablet of the PEU)
 - Reminders in order to not forget the training
 - Primary end users (tablet)
 - Formal carers (tablet of the PEU after login)
 - Family carers (tablet of the PEU after login)
 - Volunteers (tablet of the PEU after login)
 - Overview of training results
 - Primary end users (tablet)
 - Primary end user decides who else (volunteers, family carers, formal carers) can see what he/she has done (e-Mail report)

4.2 CiM Base Services

4.2.1 Motivation Service

- Tips for primary end users and informal carers
 - Primary end users (tablet)
 - Family carers (webbrowser)
 - Volunteers (webbrowser)
- Rewarding system (trophies based on predefined targets)
 - Primary end users (tablet)
 - Gadget for collecting movement data (and providing SOS functionality)
 - Primary end users (tablet, wearable)

4.2.2 Collaboration Service

- Task list with care guidelines for family carers/volunteers
 - Family carers (tablet, web)
 - Volunteers (tablet, web)

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- Formal carers (tablet, web) here we have to distinguish between nurses and home helpers
- Communication channel, information channel and electronic notes -> we will consolidate this to electronic notes
 - Family carers (tablet, web)
 - Volunteers (tablet, web)
 - Formal carers (tablet, web)

4.2.3 Administration Service

- User administration
- Security (easy login mechanism)
- Administration portal
- Login (carer)

4.3 Education Service

Create courses (with different content for different user groups)

 Author
 (web)

(

- Execute courses
 - Primary end users (tablet)
 - Formal carers (web)
 - Family carers (web)
 - Volunteers (web)
- Quizzes for different user groups with different content
 - Primary end users (tablet)
 - Formal carers (web)
 - Family carers (web)
 - Volunteers (web)

4.4 Community Service

- Arrange meetings
 - Volunteers (web, tablet)
 - Formal carers (web)
- Time recording
 - Volunteers (tablet, web)
 Report (web)
 Volunteers (web)
 - Mentor (web)

5 Use Cases

llogs has contributed to following chapters: 5.1, 5.2, and 5.5.

SRFG has contributed to following chapters: 5.2, 5.3 and 5.5.

Bit has contributed to chapter 5.4.

5.1 Motion promotion service



5.1.1.1 Enter training plan and training targets

Use Case ID	UC_1.1
Name	Enter training plan and training targets
Description	A trainer enters a group training plan (consisting of several sessions) and defines training targets in accordance to a fitness level.
Actors involved	Author/trainer/tutor
Devices/Interfaces	Web
Trigger	The author wants to enter a training plan with training targets.
Pre-condition	The author has access to the web platform of CiM. The author can log in to the system and has the rights to create a training plan.
Post-condition	The author has entered a training plan with training targets for a specific fitness level.
Main Success Scenario	 The author chooses "Training plans" from the menu. The system offers the possibilities "Group training plans", "Individual training plans" and "Create a training plan". The author selects "Create a training plan". The author enters the relevant parameters to the system (name of the plan, type of exercises, quantity per exercise and the duration, fixed regular times for training, etc.). He assigns the adequate fitness level and defines the training targets to be reached with the plan. When the parameters are entered the author can klick on "Save" or "Cancel". With "Save" the group training plan is saved and available under the menu item "Training plans for fitness levels". The author chooses "Training plan for fitness levels" and can select a training plan from the list. He picks one plan and he can "Assign training plan to PEU" and "Edit training plan" or "Cancel". The author picks "Assign training plan to PEU" and gets a list of inscribed PEU's. The author selects one or more PEU and gets a list of existing training plans. He selects one PEU, assigns a training plan, modifies parameters of the group training plan to an individual training plan is an individual plan for the PEU. He selects more than one PEU, assigns a training plan, modifies parameters (further goals, possible rewards, etc.). He can "Save" the assignment or "Cancel" it. He selects "Save" and the training plan is an individual plan for the PEU. He selects more than one PEU, assigns a training plan, modifies parameters (further goals, possible rewards, etc.). He can "Save" the assignment or "Cancel" it. With "Save" the training plan is a group training plan for several PEU's. The author can modify the parameters of existing executed training plans by choosing "Group training plans" or "Individual training plans by choosing "Group training plans" or "Individual training plans by choosing "Group

A trainer enters group training plans and training targets based on different fitness levels.



	 With "Group training plans" the author gets a list of training plans for groups and their results and he can modify the parameters for the group training. With "Individual training plans" the author gets a list of training plans with their results and he can adapt parameters for one PEU.
Alternative Flows	The web portal of CiM is not available. The author is not able to log in. The author cancels the process.

5.1.1.2 Show personal training session

Each phinary end user can have a look at his/her personal training session.		
Use Case ID	UC_1.2	
Name	Show personal training session	
Description	The PEU wants to view his personal training session.	
Actors involved	PEU	
Devices/Interfaces	Tablet	
Trigger	The PEU wants to have a look at his personal training session.	
Pre-condition	The PEU has his tablet by hand and is logged in into CiM. There is a training plan with training sessions available for this PEU.	
Post-condition	The PEU has seen his personal training session.	
Main Success Scenario	 The PEU chooses "Training exercises" and gets his personal training session. The PEU can scroll over the entries and examine the fitness program. The PEU can enter "OK" to start the training or "Cancel" to close the training session. The PEU has seen his training plan and picks "Cancel" so the training plan is closed. 	
Alternative Flows	The tablet has been switched off and the process is cancelled. The PEU has no personal training session.	

Each primary end user can have a look at his/her personal training session.

5.1.1.3 Execute personal training session

Each primary end user can perform his/her individual training session.

Use Case ID	UC_1.3
Name	Execute personal training session
Description	The PEU executes his personal training session.



Actors involved	PEU
Devices/Interfaces	Tablet
Trigger	The PEU wants to execute his personal training session.
Pre-condition	The PEU has his tablet and is logged in to CiM. There is a training plan available for this PEU.
Post-condition	The PEU has executed his personal training session.
Main Success Scenario	 The PEU chooses "Training exercises" and gets his personal training plan. The PEU can scroll over the entries and examine the fitness program. The PEU can enter "OK" to start the training or "Cancel" to close the training session. The PEU picks "OK" to start the training session. The PEU picks "OK" to start the training session. The training session starts and step by step the exercises are shown to the PEU. He can accept each step with "OK" or overleap with "Skip" or "Cancel". The PEU executes the step by entering "OK". At the end of the exercise he can choose "Repeat", "Completed" or "Not completed" to get to the next step. The PEU chooses "Repeat" to do the exercise again. The PEU chooses "Not completed" to get to the next exercise. The PEU enters "Skip" to avoid an exercise and gets the next exercise of the training session. After the last exercise the training session offers the overleaped or not completed exercise(s) and the PEU can choose to execute the exercise(s) or to end the training.
Alternative Flows	The tablet has been switched off and the process is cancelled. The PEU has cancelled the training. The PEU has no personal training session.

5.1.1.4 Automatically start recording of activity data

Daily activities are automatically recorded by the CiM wearable if it is worn.

Use Case ID	UC_1.4
Name	Automatically recording of activity data by CiM device/gadget
Description	Daily activities are automatically recorded by a wearable CiM device/gadget.
Actors involved	PEU using a gadget
Devices/Interfaces	Gadget
Trigger	The gadget automatically records the fitness data.
Pre-condition	The PEU wears a gadget which is part of the CiM devices and operational

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	reliable. The tablet is reachable for the device. The recorded data is transferred automatically to the tablet. The data is available for processing.
Post-condition	The activity data has been transferred to the CiM tablet app.
Main Success Scenario	The PEU wears the gadget and is in movement.The data is recorded by the gadget and transferred to the tablet.
Alternative Flows	The tablet is offline. The gadget is not operational reliable. The PEU does not wear the gadget.

5.1.1.5 Show activity data recorded by the CiM wearable

Use Case ID	UC_1.5
Name	Show activity data recorded by the CiM gadget/wearable
Description	A PEU can look at recorded activity data on the CiM tablet; authorized persons can look at the data on the CiM Webportal.
Actors involved	PEU, Authorized persons by the PEU (AP)
Devices/Interfaces	Tablet, web
Trigger	The PEU or AP wants to see recorded activity data.
Pre-condition	The primary end user has his tablet at hand and has logged in to CiM. The authorized person has access to the web portal of CiM and logged in. There is at least one entry of activity data available.
Post-condition	The PEU/AP has seen the relevant activity data.
Main Success Scenario	 Tablet The PEU chooses "Activity report" and gets the list of the activities sorted by date. The PEU chooses the relevant activity to see the detailed data. Web: An authorized person (AP) opens a web browser, enters the links for CiM, logs into CiM and can choose "Activity Report" to get a list of all his PEU'S. The AP selects between one of the PEU's and gets all the activity data of the PEU. The AP chooses one activity and gets all the detailed data.
Alternative Flows	The tablet has been switched off. The web portal of CiM is not available. There is no data of any gadget for the PEU available.

Fitness data/activities recorded by the CiM wearable are displayed.



5.1.1.6 Edit activity data recorded by the CiM wearable

Use Case ID	UC_1.6
Name	Edit activity data recorded by the CiM gadget/wearable
Description	The PEU looks at his recorded activity data on the CiM tablet and edits incorrect data.
Actors involved	PEU
Devices/Interfaces	Tablet
Trigger	The PEU wants to edit recorded activity data of a gadget he uses.
Pre-condition	The primary end user has his tablet at hand and has logged in to CiM. There is at least one entry of activity data available.
Post-condition	The incorrect activity data has been edited.
Main Success Scenario	 The PEU chooses "Activity report" and gets the list of the activities sorted by date. The PEU chooses the relevant activity to see the detailed data, he can choose between "Edit data", "Delete data" and "View data". The PEU chooses "Edit data" and gets the data of this recording (date, time, values,). The PEU enters the correct values and can choose between "Save" and "Cancel", he enters "Save" to overwrite the data.
Alternative Flows	The tablet has been switched off. There is no data of any gadget for the PEU available.

If activities are mapped incorrectly the end user can correct the activities.

5.1.1.7 Remove activity data recorded by the CiM wearable

If activities are wrongly recorded by the CiM device these activities can be deleted by the primary end user.

Use Case ID	UC_1.7
Name	Remove activity data recorded by the CiM gadget
Description	The PEU can delete entries of recorded data.
Actors involved	PEU
Devices/Interfaces	Tablet
Trigger	The PEU wants to delete recorded activity data of a gadget he uses.
Pre-condition	The primary end user has his tablet and has been logged in to CiM. There is at least one entry of activity data available.
Post-condition	The selected activity has been deleted.



Main Success Scenario	 The PEU chooses "Activity report" and gets the list of the activities sorted by date. The PEU selects the relevant activity to see detailed data, he can choose between "Edit data", "Delete data" and "View data". The PEU selects "Delete data" and a dialog box asks him if he really wants to delete this recording "OK" or "Cancel" the process. The PEU picks "OK" and the recording with the data is deleted.
Alternative Flows	The tablet has been switched off. There is no data of any gadget for the PEU available.

5.2 Cim Base Services

5.2.1 Motivation service

5.2.1.1 Show acitivity data and exercises performed

5.2.1.1.1 Comparison with other days

Acitivity data recorded with a wearable and exercises/trainings performed by a primary end user are shown and compared on a daily basis.

Use Case ID	UC_2.1.1
Name	Show acitivity data and exercises performed
Description	The PEU can look at his recorded data from the wearable and the executed training sessions compared on a daily basis.
Actors involved	PEU
Devices/Interfaces	Tablet
Trigger	The PEU needs to look at his recorded data.
Pre-condition	acitivity data is available.
Post-condition	The PEU has seen his activity data.
Main Success Scenario	 The PEU selects "Activity report" and gets the list of activities per day and a list of gadgets he used to record data. The PEU picks the current day and can choose between "Summary of the day" and "Reward of the day". The PEU selects "Summary of the day" and gets all information about the activities of the day (steps, time, calories, etc.). To quit the PEU enters the "Back" or "Home" button.
Alternative Flows	The tablet has been switched off. There is no fitness data of the PEU available.

5.2.1.1.2 Show rewards (based on pre-defined targets)

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Use Case ID	UC_2.1.2
Name	Show the reward concerning the acitivity data and exercises performed on a day
Description	The PEU can look at his reward for reaching the training plan target(s) on a daily basis.
Actors involved	PEU
Devices/Interfaces	Tablet
Trigger	The PEU wants to see his reward achieved by executing the training plan and reaching the goals of the plan defined by a trainer.
Pre-condition	Fitness/acitivity data are available and a reward is defined (by a trainer).
Post-condition	The PEU has seen his reward of the day.
Main Success Scenario	 The PEU selects "Activity report" and gets the list of activities per day and a list of gadgets he uses to record data. The PEU picks one executed training plan of the current day and can choose between "Summary of the day" and "Reward of the day". The PEU selects "Reward of the day" and gets the information about the reward he gets for the reached training target(s). To quit the PEU enters the "Back" or "Home" button.
Alternative Flows	The tablet has been switched off. There is no fitness data of the PEU available. No reward or target related information is defined.

Primary end users get a reward if a pre-defined target (by a trainer) is reached.

5.2.1.2 Create workout/training reminders

For each primary end user workout/training reminders are automatically created when a training plan is assigned.

Use Case ID	UC_2.2
Name	Create reminder for workout and training
Description	The training plan has a frequency of occurrence and the assigned PEU gets automatically reminders as long as the training plan is active.
Actors involved	Author/trainer/tutor
Devices/Interfaces	Web
Trigger	An assignment of a training plan to a PEU is made in the system.
Pre-condition	The trainer/author/tutor has access to the CiM system via Internet. A training plan is completely defined and saved in the system. There is at least one PEU in the system.
Post-condition	The training plan has been assigned to the PEU and the system has



	created appointments for the PEU for the durance of the training plan. The appointments have been transferred to the tablet app for the PEU.
Main Success Scenario	 The author/trainer/tutor creates a training plan, see use case 1.13. The system generates appointments according to the starting date, frequency and duration of the training plan for the assigned PEU. The system sends the appointments to the tablet of the PEU and in the system the appointment is marked as "open". Every execution of the training plan on the tablet sends automatically the information to the platform that the appointment has been met and in the system the appointment is marked as "done".
Alternative Flows	The web platform CiM is not available.

5.2.1.3 Remind on workout/training

When at 2 p.m. the work is not performed a reminder is displayed. Additionally if a volunteer, a family carer or a formal carer logs in to the tablet he/she is also reminded that the primary end user should perform his/her workout.

Use Case ID	UC_2.3
Name	Remind on workout / training
Description	The PEU has a (daily) training session and if he has not performed the training on the current day until 2 p.m. a reminder is displayed. The volunteer, family carer and/or formal care giver gets also a reminder that the PEU has not performed the planned training of the current day.
Actors involved	PEU, volunteer, family carer and/or formal carer
Devices/Interfaces	Tablet
Trigger	The PEU has a training session for the current day and has not yet performed the training until 2 p.m.
Pre-condition	The user has the tablet and the tablet is workingA training session for this day has been assigned to the PEU. It is 2 p.m.
Post-condition	The reminder has been displayed on the tablet for the PEU, the volunteer, family carer and/or formal care giver.
Main Success Scenario	 The tablet checks at 2 p.m. if the assigned training plan of the PEU has been started. If the training plan has not been started, a reminder is published: To the tablet of the PEU: "Start your workout". To the volunteer, family carer and/or formal care giver who picks the tablet: "PEU has not started the workout yet!" The PEU can pick "OK, I will start now", "I will start later" and "Skip the workout for today". The PEU selects "OK, I will start now" and he gets the training plan. The PEU selects "I will start later" and the tablet reminds him in half an hour again until the PEU picks "Skip the



	 workout for today". The PEU picks "Skip the workout for today" and the tablet stops to remind the PEU.
Alternative Flows	The tablet has been switched off. There is no training session of the PEU available.

5.2.1.4 Show daily tips

Every day a tip of the day is shown on the tablet of the primary end user.

Use Case ID	UC_2.4
Name	Show the tip of the day to the PEU
Description	The tablet shows the PEU a tip of the day.
Actors involved	PEU
Devices/Interfaces	Tablet
Trigger	A daily tip is shown at the bottom of the tablet when the date switches.
Pre-condition	The PEU uses the tablet once a day. The tablet is working.
Post-condition	The PEU has seen the daily tip.
Main Success Scenario	The PEU switches on the tablet for the first time of the day and the tablet shows him the daily tip from the predefined list of tips of the day. The PEU can select between "OK, this was helpful" and "OK".
Alternative Flows	The tablet has been switched off. There are no daily tips available.

5.2.2 Collaboration service

5.2.2.1 Enter standardized task

A mentor defines standardized tasks based on ENP care guidelines or tasks standardized by HSa and ALDIA.

Use Case ID	UC_3.1
Name	Enter standardized tasks
Description	The mentor enters a list of standardized task.
Actors involved	Mentor
Devices/Interfaces	Web
Trigger	The mentor wants to enter a standardized task.
Pre-condition	The author has access to the web platform of CiM. The author can log in



	to the system and has the rights to enter standardized tasks.
Post-condition	The mentor has entered a standardized task.
Main Success Scenario	 The mentor logs in to the web portal and picks "Standardized tasks" from the menu. The system offers the possibilities "Enter a new task", "Edit a task", "Assign a task" and "Remove a task". The author chooses "Enter a new task". The mentor can enter the description of the task and the parameters (name, description, due date, etc.) and choose between "Save" and "Cancel". The mentor picks "Save" and the task is added to a list of standardized tasks.
Alternative Flows	The web portal of CiM is not available. The mentor is not able to log in. The mentor cancels the process.

5.2.2.2 Edit standardized task

The mentor can edit existing tasks.

Use Case ID	UC_3.2
Name	Edit standardized task
Description	The mentor edits a standardized task for a PEU.
Actors involved	Mentor
Devices/Interfaces	Web
Trigger	The mentor wants to edit a standardized task.
Pre-condition	The mentor has access to the web platform of CiM. The author can log in to the system and has the rights to edit standardized tasks.
Post-condition	The mentor has edited a standardized task for a PEU.
Main Success Scenario	 The mentor logs in to the web portal and picks "Standardized tasks" from the menu. The system offers the possibilities "Enter a new task", "Edit a task", "Assign a task" and "Remove a task". The author chooses "Edit a task" and gets a list of standardized tasks. The mentor can pick a task and change the description of the task and/or the parameters (name, description, due date, etc.) and choose between "Save" and the task is changed.
Alternative Flows	The web portal of CiM is not available. The mentor is not able to log in. The mentor cancels the process.



5.2.2.3 Remove standardized task

Use Case ID	UC_3.3
Name	Remove standardized task
Description	The mentor removes a standardized task.
Actors involved	Mentor
Devices/Interfaces	Web
Trigger	The mentor wants to delete a standardized task.
Pre-condition	The author has access to the web platform of CiM. The author can log in to the system and has the rights to delete standardized tasks.
Post-condition	The mentor has removed a standardized task.
Main Success Scenario	 The mentor logs in to the web portal and picks "Standardized tasks" from the menu. The system offers the possibilities "Enter a new task", "Edit a task", "Assign a task" and "Remove a task". The author chooses "Remove a task". The mentor selects a task from the list, gets the information of assignments to PEU: A dialog box is shown with "The task has been assigned. Do you really want to delete the task?", if there has been at least one assignment. A dialog box is shown with "The task has not been assigned yet. Do you really want to delete the task?", if there has been no assignment. He can choose between "Yes" and "Cancel". The mentor picks "Yes" and the task and in case every assignment to PEU are deleted.
Alternative Flows	The web portal of CiM is not available. The mentor is not able to log in. The mentor cancels the process.

The mentor can delete existing tasks for a primary end user.

5.2.2.4 View standardized task list

Volunteers or family carers get an overview list where they can see which tasks they should perform.

Use Case ID	UC_3.4
Name	View the standardized task list
Description	Volunteers and family carer get an overview of standardized tasks for a PEU to be performed.
Actors involved	Volunteers, family carer
Devices/Interfaces	Tablet



Trigger	A volunteer or a family member wants to get an overview of standardized tasks for a PEU to be performed.
Pre-condition	The user has the tablet by hand. The tablet is working. Assignments of standardized tasks for PEU exist.
Post-condition	Volunteers and family members have seen an overview of standardized tasks for a PEU to be performed.
Main Success Scenario	 The volunteer or the family carer selects "Standardized tasks" from the menu. The system shows a list of standardized tasks assigned to the PEU(s) of the volunteer/family carer. The volunteer/family carer can look on the details by picking a task of the list. The user can choose between "Do you want to perform the task" and "View details". The volunteer/family carer picks "View details" and gets the detailed information to the task.
Alternative Flows	The tablet has been switched off. There are no assignments of standardized tasks to PEU available.

5.2.2.5 Perform standardized tasks

Volunteers or family carers can check performed tasks.

Use Case ID	UC_3.5
Name	Perform a standardized task
Description	Volunteers and family carer perform standardized tasks of a PEU.
Actors involved	Volunteers, family carer
Devices/Interfaces	Tablet
Trigger	A volunteer or a family member wants to perform a standardized task of the PEU to whom it is assigned.
Pre-condition	The user has the tablet by hand. The tablet is working. Assignments of standardized tasks for PEU exist.
Post-condition	Volunteers and family members have performed a standardized task assigned to a PEU.
Main Success Scenario	 The volunteer or the family carer chooses "Standardized tasks" from the menu. The system shows a list of standardized tasks assigned to the PEU(s) of the volunteer/family carer. The volunteer/family carer picks a task of the list. The user can choose between "Do you want to perform the task" and "View details". The volunteer/family carer picks "Perform task" and gets the detailed information to the task to be performed. After performing the task, the volunteer/family carer marks the



	tasks as completed.
Alternative Flows	The tablet has been switched off. There are no assignments of standardized tasks to PEU available.

5.2.2.6 Send standardized note

Volunteers, family carers and formal carers can exchange information using standardized (predefined) notes. E.g. a volunteer wants to inform a formal carer that the primary end-user was dizzy when being for a walk.

Use Case ID	UC_3.6
Name	Send standardized note
Description	A volunteer, family carer of formal carer sends a standardized note to inform another user about a situation/happening.
Actors involved	Volunteer, family member, formal carer
Devices/Interfaces	Tablet, web
Trigger	A volunteer, family carer of formal carer wants to send a standardized note to another user with information of a situation/happening.
Pre-condition	The user has his tablet at hand and has logged in to CiM. The user has access to the web portal of CiM and logged in. There is at least one entry in the list of standardized notes.
Post-condition	A volunteer, family carer or formal carer has sent a standardized note to another user with information to a situation/happening.
Main Success Scenario	 The volunteer or family carer selects "Notes" from the menu. The system shows him "View my notes", "Enter a standardized note" and "Enter a free text note". The user picks "Enter a standardized note" and gets a list of themes. The volunteer or family carer picks a standardized note from the list and a dialog box asks "Who should get this note?" with a list of registered users. The volunteer/family carer picks one ore more registered users and can choose between "Send" and "Cancel". The standardized note is sent to the notes boards of the selected users when the volunteer/family carer chooses "Send".
Alternative Flows	The tablet has been switched off. The web portal of CiM is not available. There are no standardized notes available. The user has cancelled the sending.

5.2.2.7 Send free text note



In addition to standardized notes volunteers, family carers and formal carers have also the possibility to enter free text notes.

Use Case ID	UC_3.7
Name	Send free text note
Description	A volunteer, family carer of formal carer sends a free text note to inform another user about a situation/happening.
Actors involved	Volunteer, family member, formal carer
Devices/Interfaces	Tablet, web
Trigger	A volunteer, family carer of formal carer wants to send a free text note to another user with information of a situation/happening.
Pre-condition	The user has his tablet at hand and has logged in to CiM. The user has access to the web portal of CiM and logged in.
Post-condition	A volunteer, family carer or formal carer has sent a free text note to another user with information to a situation/happening
Main Success Scenario	 The volunteer or family carer chooses "Notes" from the menu. The system shows him "View my notes", "Enter a standardized note" and "Enter a free text note". The user picks "Enter a free text note" and gets an empty box. The volunteer or family carer enters a free text note and can choose between "Send" one "Cancel". A dialog box asks "Who should get this note?" with a list of registered users. The volunteer/family carer picks one ore more registered users and can choose between "Send" and "Cancel". The free text note is sent to the notes boards of the selected users when the volunteer/family carer chooses "Send".
Alternative Flows	The tablet has been switched off. The web portal of CiM is not available. The user has cancelled the sending.

5.2.2.8 Receive standardized note

Selected formal carers, family members or volunteers receive a standardized note.

Use Case ID	UC_3.8
Name	Receive standardized notes
Description	A volunteer, family carer of formal carer wants to see his standardized notes.
Actors involved	Volunteer, family member, formal carer
Devices/Interfaces	Tablet, web
Trigger	A volunteer, family carer of formal carer wants to see a standardized note.



Pre-condition	The user has his tablet at hand and has logged in to CiM. The user has access to the web portal of CiM and logged in. There are notes available.
Post-condition	A volunteer, family carer or formal carer has seen a standardized note.
Main Success Scenario	 The volunteer or family carer chooses "Notes" from the menu. The system shows him "View my notes", "Enter a standardized note" and "Enter a free text note". The volunteer/family carer picks "View my notes" and can choose between "Free text notes" and "Standardized notes". The user picks "Standardized notes" and gets an overview of all free text notes, the latest received notes (marked bold as long as they are not read) on top.
Alternative Flows	The tablet has been switched off. The web portal of CiM is not available. The user has no notes.

5.2.2.9 Receive free text note

Selected formal carers, family members or volunteers receive a free text note.

Use Case ID	UC_3.9
Name	Receive free text notes
Description	A volunteer, family carer of formal carer wants to see his free text notes.
Actors involved	Volunteer, family member, formal carer
Devices/Interfaces	Tablet, web
Trigger	A volunteer, family carer of formal carer wants to see a free text note.
Pre-condition	The user has his tablet at hand and has logged in to CiM. The user has access to the web portal of CiM and logged in. There are free text notes available.
Post-condition	A volunteer, family carer or formal carer has seen a free text note.
Main Success Scenario	 The volunteer or family carer chooses "Notes" from the menu. The system shows him "View my notes", "Enter a standardized note" and "Enter a free text note". The volunteer/family carer picks "View my notes" and can choose between "Free text notes" and "Standardized notes". The user picks "Free text notes" and gets an overview of all free text notes, the latest received notes (marked bold as long as they are not read) on top.
Alternative Flows	The tablet has been switched off. The web portal of CiM is not available. The user has no notes.

5.2.2.10 Respond to standardized note

Plattner, S., Sicher, C., Willner, V., Schneider, C., Rieser, R., Schaffer, W., Dunst, H., 2016, Use Cases



Formal carers, family members or volunteers can respond to a standardized note with a standardized note or a free text note.

Use Case ID	UC_3.10
Name	Respond to a standardized note
Description	A volunteer, family carer of formal carer responds to a standardized note.
Actors involved	Volunteer, family member, formal carer
Devices/Interfaces	Tablet, web
Trigger	A volunteer, family carer of formal carer wants to respond to a standardized note.
Pre-condition	The user has his tablet at hand and has logged in to CiM. The user has access to the web portal of CiM and logged in. There are notes available.
Post-condition	A volunteer, family carer or formal carer has responded to a standardized note.
Main Success Scenario	 The volunteer or family carer chooses "Notes" from the menu. The system shows him "View my notes", "Enter a standardized note" and "Enter a free text note". The volunteer/family carer picks "View my notes" and can choose between "Free text notes" and "Standardized notes". The user picks "Free text notes" and gets an overview of all free text notes, the latest received notes (marked bold as long as they are not read) on top. By selecting one note the content is shown and the volunteer/family carer can choose between "Answer" and "OK". The user picks "Answer" and he can enter a free text note (see UC 3.7) or a standardized note (see UC 3.6).
Alternative Flows	The tablet has been switched off. The web portal of CiM is not available. The user has no notes.

5.2.2.11 Respond to free text note

Formal carers, family members or volunteers can respond to a standardized note with a standardized note or a free text note.

Use Case ID	UC_3.11
Name	Respond to a free text note
Description	A volunteer, family carer of formal carer responds to a free text note.
Actors involved	Volunteer, family member, formal carer
Devices/Interfaces	Tablet, web
Trigger	A volunteer, family carer of formal carer wants to respond to a free text note.



Pre-condition	The user has his tablet at hand and has logged in to CiM. The user has access to the web portal of CiM and logged in. There are notes available.
Post-condition	A volunteer, family carer or formal carer has responded to a free text note.
Main Success Scenario	 The volunteer or family carer chooses "Notes" from the menu. The system shows him "View my notes", "Enter a standardized note" and "Enter a free text note". The volunteer/family carer picks "View my notes" and can choose between "Free text notes" and "Standardized notes". The user picks "Free text notes" and gets an overview of all free text notes, the latest received notes (marked bold as long as they are not read) on top. By selecting one note the content is shown and the volunteer/family carer can choose between "Answer" and "OK". The user picks "Answer" and he can enter a free text note (see UC 3.7) or a standardized note (see UC 3.6).
Alternative Flows	The tablet has been switched off. The web portal of CiM is not available. The user has no notes.

5.2.2.12 View notes

Formal carers, family members or volunteers get an overview of notes associated with them.

Use Case ID	UC_3.12
Name	View notes
Description	A volunteer, family carer of formal carer looks at his notes.
Actors involved	Volunteer, family member, formal carer
Devices/Interfaces	Tablet, web
Trigger	A volunteer, family carer of formal carer wants to see his notes.
Pre-condition	The user has his tablet at hand and has logged in to CiM. The user has access to the web portal of CiM and logged in. There are notes available.
Post-condition	A volunteer, family carer of formal carer has seen his notes.
Main Success Scenario	 The volunteer or family carer chooses "Notes" from the menu. The system shows him "View my notes", "Enter a standardized note" and "Enter a free text note". The volunteer/family carer picks "View my notes" and can choose between "Free text notes" and "Standardized notes". The user picks the category he wants to see. With "OK" he gets back to the notes board.
Alternative Flows	The tablet has been switched off. The web portal of CiM is not available.



The user has no notes.

5.2.2.13 Assign a standardized task

The mentor can assign an existing task to a primary end user.

Use Case ID	UC_3.2
Name	Assign standardized task
Description	The mentor assigns a standardized task for a PEU.
Actors involved	Mentor
Devices/Interfaces	Web
Trigger	The mentor wants to assign a standardized task to a PEU.
Pre-condition	The author has access to the web platform of CiM. The author can log in to the system and has the rights to assign standardized tasks. There is at least one standardized task available. There is at least one PEU available.
Post-condition	The mentor has assigned a standardized task to a PEU.
Main Success Scenario	 The mentor logs in to the web portal and picks "Standardized tasks" from the menu. The system offers the possibilities "Enter a new task", "Edit a task", "Assign a task" and "Remove a task". The author chooses "Assign a task" and gets a list of standardized tasks. The mentor can pick a task and gets a list of his PEUs, he selects one or more PEU and can choose between "Save" and "Cancel". The mentor picks "Save" and the task is assigned to one or more PEU.
Alternative Flows	The web portal of CiM is not available. The mentor is not able to log in. The mentor cancels the process.

5.2.3 Administration service

5.2.3.1 Add user

An administrator can create a user (first name, last name, date of birth, address, sex, login, password – depending on the role attached relative, attached volunteer, attached formal carer, attached mentor etc.)

Use Case ID	UC_6.1
Name	Add user by administrator
Description	An administrator creates a user by entering first name, last name, date of birth, address, sex, login, password, role, assignments to other users.
Actors involved	Administrator



Devices/Interfaces	Web
Trigger	An administrator wants to add a new user.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system and has the rights to add user.
Post-condition	An administrator has added a new user.
Main Success Scenario	 The administrator logs in to the web portal. The administrator chooses the administration. The administrator clicks on the menu "New user". The administrator enters the first name, last name, date of birth, address, sex, login, password, role, assignments to other users of the new user. The administrator can cancel the insert of the new user with "Cancel" or save the new user with "Save". The administrator chooses "Save" and the new user is created.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.2 Edit user

An administrator can edit a user.

Use Case ID	UC_6.2
Name	Edit user data by administrator
Description	An administrator edits user data by changing first name, last name, date of birth, address, sex, login, password, role, and/or assignments to other user.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to edit a user data.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system and has the rights to edit user data.
Post-condition	An administrator has edited user data.
Main Success Scenario	 The administrator logs in the web portal. The administrator chooses the administration. The administrator clicks on the menu "User list". The administrator chooses the relevant user. The administrator edits the first name and/or last name, date of birth, address, sex, login, password, role, assignments to other users of the user. The administrator can cancel the editing of the user data with "Cancel" or save the edited data with "Save".



	• The administrator chooses "Save" and the user data is edited.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.3 Remove user

An administrator can remove a user.

Use Case ID	UC_6.3
Name	Remove user
Description	An administrator removes a user from the CiM system.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to remove a user.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system and has the rights to remove user.
Post-condition	An administrator has removed a user from the system.
Main Success Scenario	 The administrator logs in the web portal. The administrator chooses the administration. The administrator clicks on the menu "User list". The administrator chooses the relevant user. The administrator clicks on "Remove user". The administrator can cancel the process with "Cancel" or delete the user with "Save". The administrator chooses "Save" and the user data is removed.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.4 Show users

An administrator gets an overview of all users in the system. He/She can search for a user.

Use Case ID	UC_6.4
Name	Show users
Description	An administrator wants to get a list of users from the CiM system.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to see all users.



Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system. There is at least one user in the system.
Post-condition	An administrator has seen a list of users in the system.
Main Success Scenario	 The administrator logs in to the web portal. The administrator chooses the administration. The administrator clicks on the menu "User list". The administrator gets a list of the users.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in.

5.2.3.5 Create role

An administrator can create a role for users.

Use Case ID	UC_6.5
Name	Create user role
Description	An administrator creates a role for users.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to create a user role.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system.
Post-condition	The administrator has created a user role.
Main Success Scenario	 The administrator logs in the web portal. The administrator chooses the administration. The administrator clicks on the menu "User roles". The administrator clicks on "New". The administrator can name a role and define the rights for this role. With "Cancel" he can cancel the process and with "Save" the role is saved. The administrator chooses "Save" and the user role is created.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.6 Edit role

An administrator can edit a user role.

Use Case ID UC_6.6



Name	Edit user role
Description	An administrator edits a role for users.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to edit a user role.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system. There is at least one user role defined.
Post-condition	The administrator has edited a user role.
Main Success Scenario	 The administrator logs in the web portal. The administrator chooses the administration. The administrator clicks on the menu "User roles". The administrator clicks on the relevant role und chooses "Edit". The administrator can rename a role and edit the rights for this role. With "Cancel" he can cancel the process and with "Save" the adaption is saved. The administrator chooses "Save" and the user role is edited.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.7 Remove role

An administrator can remove a user role.

Use Case ID	UC_6.7
Name	Remove user role
Description	An administrator removes a role for users.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to remove a user role.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system. There is at least one user role defined.
Post-condition	The administrator has removed a user role.
Main Success Scenario	 The administrator logs in the web portal. The administrator chooses the administration. The administrator clicks on the menu "User roles". The administrator clicks on the relevant role und chooses "Remove". With "Cancel" he can cancel the process and with



	"Save" the role is removed.The administrator chooses "Save" and the user role is removed.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.8 Assign/attach role

An administrator can assign a role to a user.

Use Case ID	UC_6.8
Name	Assign role to user
Description	An administrator assigns a role to a user.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to assign a role to a user.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system. There is at least one user in the system. There is at least one role defined.
Post-condition	There is an assignment of role to user.
Main Success Scenario	 The administrator logs in the web portal. The administrator chooses the administration. The administrator clicks on the menu "User list". The administrator selects the relevant user. The administrator clicks on "Assign role to user". The administrator can choose a role from the list. With "Cancel" he can cancel the process and with "Save" the assignment is saved. The administrator selects "Save" and the user has the role assigned.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.9 Detach role

An administrator can detach a role from a user.

Use Case ID	UC_6.8
Name	Detach role from user
Description	An administrator wants to detach the assignment of a role from a user.



Actors involved	Administrator
Devices/Interfaces	web
Trigger	An administrator wants to detach a role from a user.
Pre-condition	There is an assignment of role to user.
Post-condition	The assignment of the user-role is deleted.
Main Success Scenario	 The administrator logs in the web portal. The administrator selects the administration. The administrator clicks on the menu "User list". The administrator chooses the relevant user. The administrator clicks on "Detach role from user". With "Cancel" he can cancel the process and with "Save" the assignment is deleted. The administrator chooses "Save" and the role is detached from the user.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.10 Sign in (tablet)

Each carer accesses the tablet of the PEU to login.

Use Case ID	UC_6.9
Name	Sign in (tablet)
Description	A carer can sign in on the tablet using his password.
Actors involved	volunteers, formal carer, family carer
Devices/Interfaces	tablet
Trigger	The carer wants to log into the tablet of the primary end user.
Pre-condition	The carer has access to the tablet of the primary end user.
Post-condition	The carer is logged into the tablet of the primary end user.
Main Success Scenario	 The carer presses "login" on the tablet The carer selects his user from a list of available users The carer enter his password
Alternative Flows	 Password is wrong – carer may re-enter password or cancel the login process.

5.2.3.11 Sign in (web)

Each carer accesses the web application of CiM to login. Plattner, S., Sicher, C., Willner, V., Schneider, C., Rieser, R., Schaffer, W., Dunst, H., 2016, Use Cases



Use Case ID	UC_6.10
Name	Sign in (web)
Description	A carer an sign into the web application using his username and password.
Actors involved	volunteers, formal carer, family carer
Devices/Interfaces	Tablet, web
Trigger	The carer wants to access the web application of CiM.
Pre-condition	The carer has access to the web application of CiM using a web browser.
Post-condition	The carer is logged into the web application of CiM.
Main Success Scenario	 The carer accesses the web application of Cim The carer is presented with a dialog to enter username and password The carer enter his username and password
Alternative Flows	 Username/password is wrong – carer may re-enter username and password or cancel the login process.

5.2.3.12 Easy sign in

The primary end user is logged in automatically when starting the tablet app.

Use Case ID	UC_6.11
Name	Easy sign in
Description	Once the tablet application is started, the PEU assigned to this tablet is automatically logged into the system.
Actors involved	PEU
Devices/Interfaces	Tablet
Trigger	Tablet of PEU is started.
Pre-condition	
Post-condition	PEU is logged into the system
Main Success Scenario	• When the application is started, it uses stored login credentials for the user to automatically log in.
Alternative Flows	

5.2.3.13 Sign out - tablet



Formal carers, family members and volunteers can sign out by clicking on a logout button or by just clicking the on/off button.

Use Case ID	UC_6.12
Name	Log out – tablet
Description	If the carer no longer needs access to the functions of the tablet, it is possible to log out using the logout-button, or by letting the tablet enter sleep mode (either per timeout, or by pressing the on/off button).
Actors involved	volunteers, formal carer, family carer
Devices/Interfaces	tablet
Trigger	The carer wants to log out
Pre-condition	The carer is logged into the tablet.
Post-condition	The carer is logged out.
Main Success Scenario	 The carer logs out by either: Pressing the Logout button in the user interface Pressing the on/off button on the tablet Letting the tablet change to sleep mode (timeout)
Alternative Flows	

5.2.3.14 Sign out - web

Formal carers, family members and volunteers can sign out by clicking on a logout button - after a certain time a user will be automatically signed out.

Use Case ID	UC_6.13
Name	Sign out – web
Description	If the carer no longer needs access to the CiM functions in the web, a logout is needed.
Actors involved	Formal carers, family members and volunteers
Devices/Interfaces	web
Trigger	The carer wants to log out.
Pre-condition	The carer is logged into the web application.
Post-condition	The carer is logged out.
Main Success Scenario	 The carer logs out by either: Pressing the Logout button in the user interface Letting a timeout expire (no interaction with the user interface for a period of time)
Alternative Flows	



5.2.3.15 Assign formal carer to primary end user

Use Case ID	UC_6.14
Name	Assign formal carer to user
Description	An administrator assigns formal carer to a primary end user. This creates a link between the primary end user and the formal carer. The linked formal carer can login to the device of the primary end user.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to assign formal carer to a primary end user.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system. There are at least two users in the system, one with the role "primary end user" and one with the role "formal carer".
Post-condition	The formal carer is linked to the primary end user.
Main Success Scenario	 The administrator logs in to the web portal. The administrator selects the administration. The administrator clicks on the menu "User list". The administrator selects the relevant user. The administrator clicks on "Assign formal carer to user". The administrator is presented with a list of formal carers (users with the role "formal carer"). The administrator can select a formal carer from the list. With "Cancel" he can cancel the process and with "Save" the assignment is saved. The administrator chooses "Save" and the user has the formal carer assigned.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

An administrator can assign a formal carer to a primary end users

5.2.3.16 Assign informal carer to primary end user

An administrator can assign an informal carer to a primary end users

Use Case ID	UC_6.15
Name	Assign informal carer to user
Description	An administrator assigns formal carer to a primary end user. This creates a link between the primary end user and the informal carer. The linked informal carer can login to the device of the primary end user.
Actors involved	Administrator
Devices/Interfaces	Web



Trigger	An administrator wants to assign an informal carer to a primary end user.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system. There are at least two users in the system, one with the role "primary end user" and one with the role "informal carer".
Post-condition	The informal carer is linked to the primary end user.
Main Success Scenario	 The administrator logs in to the web portal. The administrator selects the administration. The administrator clicks on the menu "User list". The administrator selects the relevant user. The administrator clicks on "Assign informal carer to user". The administrator is presented with a list of informal carers (users with the role "informal carer"). The administrator can select an informal carer from the list. With "Cancel" he can cancel the process and with "Save" the assignment is saved. The administrator chooses "Save" and the user has the informal carer assigned.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.17 Detatch carer from primary end user

An administrator can unassign a carer from a primary end users

Use Case ID	UC_6.16
Name	Unassign carer from user
Description	An administrator unassigns a carer carer from a primary end user.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An administrator wants to detach a carer from a primary end user.
Pre-condition	The administrator has access to the web platform of CiM. The administrator can log in to the system. There are at least two linked users in the system, one with the role "primary end user" assigned to one with the role "formal carer" or "informal carer".
Post-condition	The carer is detached from the primary end user.
Main Success Scenario	 The administrator logs in to the web portal. The administrator selects the administration. The administrator clicks on the menu "User list". The administrator selects the relevant user. The administrator clicks on "Carer list". The administrator is presented with a list of carers (with the type -



	 formal or informal - shown in the list). The administrator can select a carer from the list. Pressing "Unassign" he can unassign the carer from the primary end user. With "Cancel" he can cancel the process and with "Save" the change is saved. The administrator selects "Save" and the user has the carer unassigned.
Alternative Flows	The web portal of CiM is not available. The administrator is not able to log in. The administrator cancels the process.

5.2.3.18 Create device

An administrator can register a device with the system.

Use Case ID	UC_6.17
Name	Register new device
Description	An administrator starts the CIM native application on a tablet device. The device registers itself with the CiM services, and the device profile is automatically created in the system
Actors involved	Administrator
Devices/Interfaces	Tablet
Trigger	An adminstrator wants to add a new tablet device to the system
Pre-condition	The tablet device is available, not registered with the system, no software is installed.
Post-condition	The tablet device is registered with the system
Main Success Scenario	 The administrator installs the CiM tablet application on the tablet device. The administrator starts the CiM tablet application on the tablet device The tablet device registers itself with the CiM services. A device profile is created for the device and a registration code is sent to the device The registration code is presented on the device which is used to assign a user to a device (se UC 6.18)

5.2.3.19 Assign User to device

An administrator can assign a tablet device to a primary end user

Use Case ID	UC_6.18	



Name	Assign device to primary end user
Description	An administrator starts the CIM native application on a tablet device. The device is registered, but not yet linked to a primary end user. The tablet device shows a registration code.
Actors involved	Administrator
Devices/Interfaces	Tablet, Web
Trigger	An adminstrator wants to assign a tablet device to a primary end user.
Pre-condition	The tablet device is available, registered with the system, but not linked to a primary end user. The administrator has access to the CiM Web Application.
Post-condition	The tablet device is registered with the system
Main Success Scenario	 The administrator starts the CiM tablet application on the tablet device The administrator logs into the CiM Web Portal. The administrator selects a primary end user she wants the tablet assigned. The administrator edits the user, and enters device selection The administrator enters the devices registration code or selects the device from a list The administrator saves the change. The system sends a message to the device with the new Information (user assigned to device) The device removes the registration code, and shows the main screen of the application.
Alternative Flows	

5.2.3.20 Remove Device

An administrator can remove a tablet device from the system

Use Case ID	UC_6.18
Name	Remove a tablet device
Description	The tablet device is removed from the system
Actors involved	Administrator
Devices/Interfaces	Tablet, Web
Trigger	An adminstrator wants to remove a tablet device.
Pre-condition	The tablet device is available and is registered with the system. The administrator has access to the CiM Web Application.
Post-condition	The tablet device is unregistered



Main Success Scenario	 The administrator starts the CiM tablet application on the tablet device The administrator logs into the CiM Web Portal. The administrator chooses the tablet device she wants to remove The administrator selects delete If the device is assigned to a user, the assignment is deleted, too.
Alternative Flows	

5.2.3.21 Assign different device to user

An administrator can unassign a tablet device from a primary end user, or assign a different device

Use Case ID	UC_6.19
Name	Unassign device from primary end user or assign new device to primary end user
Description	The administrator starts the CiM Web Portal and unassigns a device from a user.
Actors involved	Administrator
Devices/Interfaces	Tablet, Web
Trigger	An adminstrator wants to assign a tablet device to a primary end user.
Pre-condition	The tablet device is available, registered with the system, and linked to a Primary End User. The administrator has access to the CiM Web Application.
Post-condition	A new tablet device (or none) is assigned to the primary end user.
Main Success Scenario	 The administrator starts the CiM tablet application on the tablet device The administrator logs into the CiM Web Portal. The administrator chooses a primary end user he wants the tablet assigned. The administrator edits the user, and enters device selection The administrator enters the devices registration code or selects the device from a list Alernatively: The administrator selects "no device" to simply unassign the device from the user The administrator saves the change. The system sends a message to the involved devices with the new Information (user assigned to/anassigned from device) The new device removes the registration code, and shows the main screen of the application. The old device deletes all local user profile data, and shows the registration code again.



5.2.3.22 Modify information of Device

An administrator can edit the information of a tablet device stored in the system

Use Case ID	UC_6.20
Name	Edit the information of a tablet device
Description	The tablet device's metadata is modified in the system
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An adminstrator wants to modify the information of a tablet device.
Pre-condition	The tablet device is available and is registered with the system. The administrator has access to the CiM Web Application.
Post-condition	The tablet device's metadata is modified
Main Success Scenario	 The administrator starts the CiM web application The administrator logs into the CiM Web Portal. The administrator selects the tablet device she wants to edit The administrator edits the information about the device The new information is pushed to the device
Alternative Flows	

5.2.3.23 Register Wearable

An administrator can register a wearable device with the system

Use Case ID	UC_6.21
Name	Register Wearable with system
Description	The administrator connects the tablet device to the wearable. The Tablet device application automatically registers the wearable in the system, and the system links the tablet device and the wearable device.
Actors involved	Administrator
Devices/Interfaces	Tablet, Web
Trigger	An adminstrator wants to add a new wearable device.
Pre-condition	The administrator has access to the CiM Web Application.
Post-condition	The wearable device is available and is registered with the system.
Main Success Scenario	• The administrator connects the tablet device with the wearable (Note: how this is done may differ from wearable to wearable)



	 The tablet application registers the wearable with the system. The system links wearable to tablet. The tablet device shows a message that the wearable was successfully registered.
Alternative Flows	

5.2.3.24 List devices

An administrator lists all devices (tablets and wearables) in the system, including their status.

Use Case ID	UC_6.22
Name	List devices.
Description	The administrator requests a list of all devices in the system to get their status (online/offline since)
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	An adminstrator wants to get the status of the devices.
Pre-condition	The administrator has access to the CiM Web Application.
Post-condition	
Main Success Scenario	 The administrator logs into the CiM Web Portal. The administrator selects devices The system presents a list of devices available including their status.
Alternative Flows	

5.2.3.25 Create Organization

An administrator wants to create a new organization.

Use Case ID	UC_6.23
Name	Create organization.
Description	The administrator wants to create a new organization.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	
Pre-condition	



Post-condition	
Main Success Scenario	 The administrator logs into the CiM Web Portal. The administrator selects "Create Organization" The administrator enters information about the organization (such as name, description,) The administrator accepts by pressing "Save"
Alternative Flows	

5.2.3.26 Assign Users to Organization

An administrator wants to assign users to a organization.

Use Case ID	UC_6.24
Name	Assign users to organization.
Description	Users (Carers, PEUs) are assigned to an organization. This limits access rights of the users to other users of the same organization.
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	
Pre-condition	
Post-condition	
Main Success Scenario	 The administrator logs into the CiM Web Portal. The administrator selects "Assign Users to Organization" The administrator selects an existing organization The administrator is presented a list of unassigned users The administrator selects a list of users The administrator assigns the users to the organization by pressing "Save"
Alternative Flows	

5.2.3.27 Uassign Users from Organization

An administrator wants to assign users to a organization.

Use Case ID	UC_6.25
Name	Unassign users from organization.
Description	Users (Carers, PEUs) are unassigned from an organization.
Actors involved	Administrator



Devices/Interfaces	Web
Trigger	
Pre-condition	
Post-condition	
Main Success Scenario	 The administrator logs into the CiM Web Portal. The administrator selects "Unassign Users to Organization" The administrator selects an existing organization The administrator is presented a list of users assigned to this organization The administrator selects a list of users The administrator unassigns the users from the organization by pressing "Save"
Alternative Flows	

5.3 Community service

5.3.1.1 Assign primary end user to one volunteer

In the web-portal the mentor selects a volunteer and assigns him/her to one or more primary end users.

Use Case ID	UC_4.1
Name	Attach primary end users to one volunteer
Description	A mentor assigns a volunteer to a primary end user.
Actors involved	Mentor
Devices/Interfaces	web
Trigger	The mentor wants to link a volunteer to a primary end user
Pre-condition	Primary end user and volunteer are already in the system
Post-condition	Primary end user and volunteer are linked Volunteer is now able to login at the respective primary end user's tablet
Main Success Scenario	 The mentor logs in to the web portal The mentor goes to the "community service" The mentor searches for a volunteer Within the interface of the volunteer the mentor clicks "assign to primary end user" The mentor searches for the dedicated primary end user The mentor assigns the volunteer to the primary end user



Alternative Flows	The volunteer is not in the system and cannot be found by the mentor
	See 6.1 add user
	Cancellation through the mentor
	During the assignment the mentor cancels the workflow by clicking the "cancel" button

5.3.1.2 Unassign primary end user from volunteer

In the web-portal the mentor selects a volunteer and unassigns a primary end user from him/her.

Use Case ID	UC_4.2
Name	Unassign primary end user from volunteer
Description	A mentor unassigns a primary end user from a volunteer from
Actors involved	Mentor
Devices/Interfaces	web
Trigger	The mentor wants to unassign primary end user from a volunteer from
Pre-condition	Primary end user is assigned to a volunteer
Post-condition	Primary end user is unassigned from a volunteer
Main Success Scenario	 The mentor logs on the web portal The mentor goes to the community service The mentor searches for a volunteer Within the interface of the volunteer the mentor clicks "unassign end user" A list with possible primary end users is presented The mentor unassignes the end user(s)
Alternative Flows	Cancellation through the mentor During the detach-process the mentor cancels the workflow by clicking the "cancel" button

5.3.1.3 Arrange meeting (formal carer)

In the web-portal the formal carer can arrange a meeting between a primary end user and a volunteer.

Use Case ID	UC_4.3
Name	Arrange meeting (formal carer)
Description	The formal carer arranges a meeting between a prinmary end user and a volunteer



Actors involved	Formal carer, mentor
Devices/Interfaces	web, tablet
Trigger	The formal carer is asked by a volunteer or a primary end user to arrange a meeting
Pre-condition	Mentor gets a fixed date and time for the meeting Primary end user and volunteer are in the system and are linked
Post-condition	The meeting is arranged The primary end user is automatically reminded on the appointment 2 hours in advance
Main Success Scenario	 The mentor/formal carer logs on the web portal The mentor/formal carer goes to the community service The mentor/formal carer searches for a volunteer Within the interface of the volunteer the mentor/formal carer clicks "arrange meeting" A list with possible primary end users is presented The mentor/formal carer adds date and time The mentor/formal carer saves the meeting
Alternative Flows	Cancellation through the mentor/formal carer During the arrange meeting process the mentor/formal carer cancels the workflow by clicking the "cancel" button

5.3.1.4 Arrange meeting (volunteer)

In the web-portal or on the primary end user's tablet the volunteer can arrange a meeting between him/her and the primary end user.

Use Case ID	UC_4.4
Name	Arrange meeting (volunteer)
Description	The volunteer arranges a meeting between him/her and the primary end user
Actors involved	Volunteer
Devices/Interfaces	web, tablet
Trigger	Volunteer wants to arrange a meeting
Pre-condition	Primary end user and volunteer are in the system and are linked
Post-condition	The meeting is arranged The end user is automatically reminded on the appointment 2 hours in advance
Main Success	1. Web:



Scenario	 The volunteer logs on the web portal The volunteer goes to the community service The volunteer clicks "arrange meeting" The volunteer selects the pimary end user from a list of available users. The volunteer adds date and time The volunteer saves the meeting
	Tablet:
	 The volunteer clicks "arrange meeting" The volunteer adds date and time The volunteer saves the meeting
Alternative Flows	Cancellation
	During the arrange meeting process the volunteer carer cancels the workflow by clicking the "cancel" button

5.3.1.5 Meeting overview (formal carer)

A formal carer logs in the web-portal and gets an overview of meetings arranged for his/her customers/volunteers.

Use Case ID	UC_4.5
Name	Meeting overview (formal carer)
Description	Overview for formal carers/mentors of meetings arranged for his/her customers/volunteers
Actors involved	Formal carer, mentor
Devices/Interfaces	web
Trigger	A formal carer wants to get infomation about their meetings
Pre-condition	Volunteer/end user is in the system
Post-condition	Overview is shown
Main Success Scenario	Formal carer logs in to the web-portal Formal carer searches the primary end user and clicks "overview" Formal carer clicks on "meetings" Meeting overview is shown
Alternative Flows	Cancellation through the mentor/formal carer During the process the mentor/formal carer cancels the workflow by clicking the "cancel" button



5.3.1.6 Meeting overview (volunteer)

A volunteer logs in to the web-portal or tablet of the primary end user and gets an overview of meetings arranged for him/her.

Use Case ID	UC_4.6
Name	Meeting overview for volunteer
Description	A volunteer gets an overview of meetings arranged for him/her
Actors involved	Volunteer
Devices/Interfaces	web, tablet
Trigger	A volunteer wants to see his meetings
Pre-condition	Volunteer is in the system Volunteer is connected to an end user
Post-condition	Overview is shown
Main Success Scenario	 Web: 1. Volunteer logs in to the web-portal 2. Volunteer goes to community service 3. Clicks on "overview" 4. Volunteer clicks on "meetings" 5. Meeting overview is shown Tablet: Clicks on "overview" Clicks on "overview" Volunteer clicks on "meetings" Weeting overview of meetings with the primary end user is shown
Alternative Flows	Cancellation through the volunteer During the process the volunteer cancels the workflow by clicking the "cancel" button

5.3.1.7 Meeting overview (primary end user)

The primary end user logs in the tablet and gets an overview of meetings arranged for him/her.

Use Case ID	UC 4.7
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Name	Meeting overview (primary end user)
Description	A primary end user gets an overview of meetings arranged for him/her
Actors involved	Primary end user
Devices/Interfaces	tablet
Trigger	A primary end user wants to see his meetings
Pre-condition	-
Post-condition	Overview is shown
Main Success Scenario	Primary end user logs in to her/his tablet Primary end user goes to community service Clicks on "overview" Primary end user clicks on "meetings" Meeting overview is shown
Alternative Flows	Cancellation through the primary end user During the process the primary end user cancels the workflow by clicking the "cancel" button

5.3.1.8 Meeting summary

Before the volunteer is leaving, the PEU he/she sums up activities performed with the PEU (activitiy report where activities can be selected) and gives a short impression on the current health status of the end user (smileys scale).

Use Case ID	UC_4.8
Name	Meeting summary
Description	At the end of a meeting the volunteer gives an overview of activities performed. This summary is also used for the time reports
Actors involved	Volunteer
Devices/Interfaces	tablet
Trigger	Meeting is over
Pre-condition	A meeting took place
Post-condition	Summary has been created and saved
Main Success Scenario	The volunteer logs in the PEU's tablet The volunteer goes to the community service Volunteer presses "meeting summary" Volunteer selects activities and time spent for these activities Volunteer selects a smiley for the health status Volunteer saves his/her summary



Alternative Flows	Cancellation through the volunteer
	During the process the volunteer cancels the workflow by clicking the "cancel" button

5.3.1.9 Create report (mentor)

The mentor logs in to the web-portal and has a look at activities performed by his/her volunteers. The mentor additionally gets a ranking of the volunteers in his/her area.

Use Case ID	UC_4.9
Name	Create report (mentor)
Description	The mentor can generate a report on tasks performed by volunteers. Additionally the mentor gets a ranking of the volunteers
Actors involved	Mentor
Devices/Interfaces	web
Trigger	The mentor wants to know what his/her volunteers have done. The mentor wants to create a ranking list.
Pre-condition	-
Post-condition	Report is shown
Main Success Scenario	The mentor logs in the web-portal The mentor goes to the community service The mentor clicks on "ranking" A ranked volunteer list is shown (volunteers are ordered by hours spent on CiM activities) By clicking on a volunteer this volunteer is shown in detail (meeting information + name of end user and for each meeting number of activities and time spent on this activities)
Alternative Flows	Cancellation through the mentor During the process the mentor cancels the workflow by clicking the "cancel" button

5.3.1.10 Create report (administrator)

The administrator logs in to the web-portal and can have a look at activities performed by all volunteers. The administrator additionally gets a ranking of all volunteers of one organisation.

Use Case ID	UC_4.10
Name	Create report (administrator)
Description	The administrator can generate a report on tasks performed by all volunteers of one organisation. Additionally the administrator gets a



	ranking of these volunteers
Actors involved	Administrator
Devices/Interfaces	web
Trigger	The administrator wants to know what the volunteers have done. The administrator wants to create a ranking list for one organisation
Pre-condition	-
Post-condition	Report is created
Main Success Scenario	The administartor logs in to the web-portal The administartor goes to the community service The administartor clicks on "ranking" A ranked volunteer list is shown (volunteers are ordered by hours spent on CiM activities) By clicking on a dedicated volunteer this volunteer is shown in detail (meeting information + name of end user and for each meeting number of activities and time spent on this activities)
Alternative Flows	Cancellation through the administrator During the process the administrator cancels the workflow by clicking the "cancel" button Filter by organisation and area The administartor logs in the web-portal The administartor goes to the community service The administrator clicks on ranking The administrator clicks on ranking The administrator chooses an organisation The administrator chooses an area A ranked volunteer list is shown (volunteers are ordered by hours spent on CiM activities) By clicking on a deticated volunteer the this volunteer is shown in detail (meeting information + name of end user and for each meeting number of activities and time spent on this activities)

5.3.1.11 Create report (volunteer)

The volunteer logs in to the web-portal and can have a look at activities performed by him.

Use Case ID	UC_4.11
Name	Create report (volunteer)
Description	The volunteer can generate a report on tasks performed by him/her
Actors involved	Volunteer
Devices/Interfaces	web
Trigger	The volunteer wants to know what he/she has done



Pre-condition	_
Post-condition	Report is shown
Main Success Scenario	The volunteer logs in to the web-portal The volunteer goes to the community service The volunteer clicks on report The report is shown (amounts of hours + details -> meeting information + name of primary end user and for each meeting number of activities and time spent on this activities)
Alternative Flows	Cancellation through the volunteer During the process the volunteer cancels the workflow by clicking the "cancel" button

5.3.1.12 Summary reminder (volunteer)

If a volunteer had a meeting, and did not create a summary for this meeting, an SMS is sent to remind him to create the summary.

Use Case ID	UC_4.12
Name	summary reminder (volunteer)
Description	If the volunteer forgets to create a meeting summary after, he will be reminded automatically via SMS to do so.
Actors involved	Volunteer
Devices/Interfaces	SMS
Trigger	The volunteer forgot to create a meeting summary
Pre-condition	A meeting took place (was arranged) and no summary was created
Post-condition	Volunteer got a reminder per SMS
Main Success Scenario	Every day at 18:00 the system checks if for every meeting on this day a summary was created For every meeting with no summary, the system automatically sends a reminder SMS to the dedicated volunteer if the volunteer has provided a mobile phone number The volunteer get the SMS
Alternative Flows	-

5.3.1.13 Summary web (volunteer)



The volunteer got a SMS which reminds him to create a summary for the meeting which took place this day

Use Case ID	UC_4.13
Name	summary web (volunteer)
Description	The volunteer can create a summary of a meeting on the web
Actors involved	Volunteer
Devices/Interfaces	web
Trigger	The volunteer forgot to create a summary after a meeting
Pre-condition	The volunteer got a reminder SMS
Post-condition	Meeting summary is created
Main Success Scenario	The volunteer got a reminder SMS The volunteer logs in the web-portal The volunteer goes to the community service Meetings that have no summary are shown The volunteer clicks "meeting summary" Volunteer chooses activities and time spent for these activities Volunteer chooses a smiley for the health status Volunteer saves his/her summary, meeting is not shown in the list anymore
Alternative Flows	Meeting didn't take place The volunteer got a reminder SMS The volunteer logs in the web portal The volunteer goes to the community service Meetings of today which have no summary are shown The volunteer clicks "meeting didn't take place" Status is saved, meeting is not shown in the list anymore Cancellation through the volunteer During the process the volunteer cancels the workflow by clicking the "cancel" button

5.4 Education service

5.4.1.1 Create course and enter content

An author creates a course and enters the course content.

Use Case ID	UC_5.1
Name	Create course and enter content
Description	An author creates a course and enters the course content.



Actors involved	Author
Devices/Interfaces	web
Trigger	A course is needed for a defined learning path
Pre-condition	A concept or a storyboard is written
Post-condition	The course is ready for publishing
Main Success Scenario	The author logs in the web portal The author call the administration The author clicks to the menu authoring, a new window opens with the online authoring tool The author creates a new project The author starts the project in the authoring mode creating menu structure creating sites with text, pictures, videos, creating test questions (single choice, multiple choice) The author close the authoring mode The author starts the content view mode (maybe fix errors or make changes again in the authoring mode) The author defines the course as "ready for publishing"
Alternative Flows	The author can alway stop during the process and start again. It is also pssible to create QA and Management Accounts for a quality assurance process in the content development

5.4.1.2 Edit course and content

An author can edit a course and its content.

Use Case ID	UC_5.2
Name	Edit course and content
Description	An author can edit a course and its content.
Actors involved	Author
Devices/Interfaces	web
Trigger	A course exists, it is necesary to change something
Pre-condition	The course exists and is published to learners
Post-condition	The change is automatically published to the learners
Main Success Scenario	The author logs in the web portal The author call the administration The author clicks to the menu authoring, a new window opens with the online authoring tool The author search for the existing project that must be changed The author starts the project in the authoring mode, and change the necesary topics



	The author close the authoring mode The author starts the content view mode (maybe fix errors or make changes again in the authoring mode) The author defines the course as "ready for publishing" The author publish the course again, the existing course will be updated
Alternative Flows	The author can alway stop during the process and start again. It is also pssible to create QA and Management Accounts for a quality assurance process in the content development

5.4.1.3 Delete course and content

An author can remove a course and its content.

Use Case ID	UC_5.3
Name	Delete course and content
Description	An author can remove a course and its content.
Actors involved	Author
Devices/Interfaces	web
Trigger	A course is not needed anymore or was only a demo course
Pre-condition	The course exists and is published to learners
Post-condition	The course and all activations are deleted
Main Success Scenario	The author logs in the web portal The author call the administration The author clicks on the menu activationlist The author search for all activations for the course that should be deleted The author cancel or delete all activations for this course The author open the menu learning objects The author search for the course that should be deleted The author deaktivate or delete the course The author clicks to the menu authoring, a new window opens with the online authoring tool The author search for the existing project that must be deleted The author delete the project Additional Information: With course deletion all user-learning information data will be also deleted.
Alternative Flows	No alternative flow. It is necesary to do all steps that the course will be deleted completely

5.4.1.4 Show courses overview

A volunteer, a formal carer, a primary end user and a family carer gets an overview of its courses.

Plattner, S., Sicher, C., Willner, V., Schneider, C., Rieser, R., Schaffer, W., Dunst, H., 2016, Use Cases



Use Case ID	UC_5.4
Name	Show courses overview
Description	A volunteer, a formal carer, a primary end user and a family carer gets an overview of its courses.
Actors involved	Users – volunteers, formal carer, family carer
Devices/Interfaces	web, tablet
Trigger	A user wants to see its content list
Pre-condition	There is an activation for minimum one course for the user
Post-condition	The list with possible contents is shown
Main Success Scenario	User call the SITOS system via tablet app or desktop browser User log into system User see the course list direct after log in on the start page
Alternative Flows	User call the SITOS system via tablet app or desktop browser User log into system User see the course list direct after calling the system on the start page User got to any other menu User can call the course list with clicking on the menu "start page"

5.4.1.5 Choose course(s)

CiM users can select a course they are interested in.

Use Case ID	UC_5.5
Name	Choose course(s)
Description	CiM users can choose a course they are interested in.
Actors involved	Users – volunteers, formal carer, family carer
Devices/Interfaces	web, tablet
Trigger	A user wants to learn a course from the catalogue
Pre-condition	The course is available in the SITOS Catalogue
Post-condition	The course is assigned to the user and available in the seminar room
Main Success Scenario	User call the SITOS system via tablet app or desktop browser User log into system User click on the menu "catalogue" User select the category of interest User select the course of interesst User click on "book course" User gets a message that the selected course was booked (course



	activation was done in the background) User will be automatically linked to the course and is able to start the course
Alternative Flows	No alternative flow.

5.4.1.6 Study course, answer questionnaire and receive certificate

A CiM user studies a course. At the end of this course he/she has to answer a questionnaire concerning the course topics. After answering xx % of the questions correctly the user receives a certificate.

Use Case ID	UC_5.6
Name	Study course, answer questionnaire and receive certificate
Description	A CiM user studies a course. At the end of this course he/she has to answer a questionnaire concerning the course topics. After answering xx % of the questions correctly the user receives a certificate.
Actors involved	Users – volunteers, formal carer, family carer
Devices/Interfaces	web, tablet
Trigger	User wants to study a course
Pre-condition	There is an activation for minimum one course for the user
Post-condition	The course status is finished, the questionaire is completed and the user is able to download a certificate
Main Success Scenario	User call the SITOS system via tablet app or desktop browser User log into system User see the course list direct after log in on the start page User click on the course of interrest (The course (learning path) is shown with two activities inside, one learning activity and one questionnaire activity) User learns the learning activity (online course) and finish it User get acess to the questionnaire User reached the necessary score for passing the test (the course (whole learning path) will be set to status completed) User gets a new button with download certificate User download the certificate or send the certificate via e-Mail
Alternative Flows	

5.4.1.7 Repeat questionnaire and receive certificate

If for the first time the user was not able to answer xx % of the questions correctly he/she can repeat the test.

Use Case ID	UC_5.7	
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Name	Repeat questionnaire and receive certificate
Description	If for the first time the user was not able to answer xx % of the questions correctly he/she can repeat the test.
Actors involved	Users – volunteers, formal carer, family carer
Devices/Interfaces	web, tablet
Trigger	User wants to finish a course that was failed
Pre-condition	User studied a course, but failed the test. the user recieved no certificate
Post-condition	The course status is finished, the questionaire is completed and the user is able to download a certificate
Main Success Scenario	User call the SITOS system via tablet app or desktop browser User log into system User see the course list direct after log in on the start page User click on the course that was failed User start the test (questionaire) again (the test starts from the beginning) User reached the necessary score for passing the test (the course (whole learning path) will be set to status completed) User gets a new button with download certificate User download the certificate or send the certificate via e-Mail
Alternative Flows	

5.4.1.8 Save current course status

A user has the possibility to interrupt a course session. The current status of the course is saved and later (e.g. after two days) the course can be continued.

Use Case ID	UC_5.8
Name	Save current course status
Description	A user has the possibility to interrupt a course session. The current status of the course is saved and later (e.g. after two days) the course can be continued.
Actors involved	Users – volunteers, formal carer, family carer
Devices/Interfaces	web, tablet
Trigger	User started learning and want now finish the course
Pre-condition	User studied parts of a course, course status is not finished
Post-condition	The course status is finished and the user is able to download a certificate
Main Success Scenario	User call the SITOS system via tablet app or desktop browser User log into system



	User see the course list direct after log in on the start page User click on the course that was interupted User start the course (content) again. The course starts at the same page where the course was interupted The user finsih the course (the course (whole learning path) will be set to status completed) User gets a new button with download certificate User download the certificate or send the certificate via e-Mail
Alternative Flows	

5.4.1.9 Continue course

After some time an interrupted course can be continued.

Use Case ID	UC_5.9
Name	Continue course
Description	After some time an interrupted course can be continued.
Actors involved	Users – volunteers, formal carer, family carer
Devices/Interfaces	web, tablet
Trigger	User started learning some tome ago and want now finish the course
Pre-condition	User studied parts of a course, course status is not finished
Post-condition	The course status is finished and the user is able to download a certificate
Main Success Scenario	User call the SITOS system via tablet app or desktop browser User log into system User see the course list direct after log in on the start page User click on the course that was interupted User start the course (content) again. The course starts at the same page where the course was interupted The user finish the course (the course (whole learning path) will be set to status completed) User gets a new button with download certificate User download the certificate or send the certificate via e-Mail
Alternative Flows	

5.4.1.10 Look up course content again after finishing course

If a course is already finished and the user is again interested in the course content he/she can look up the course content again.

Use Case ID	UC_5.10
Name	Look up course content again after finishing course



Description	If a course is already finished and the user is again interested in the course content he/she can look up the course content again.
Actors involved	Users – volunteers, formal carer, family carer
Devices/Interfaces	web, tablet
Trigger	User wants to learn a course again after it was finished
Pre-condition	User learned a course and the course status is finished
Post-condition	User learned a course again, the course status is not changed
Main Success Scenario	User call the SITOS system via tablet app or desktop browser User log into system User see the course list direct after log in on the start page User set the filter to "finished courses" User click on the finished course of interrest User start the course (content) again. The course status will not change
Alternative Flows	

5.4.1.11 Create quiz

An author can create a quiz based on the content of a course.

Use Case ID	UC_5.11
Name	Create quiz
Description	An author can create a quiz based on the content of a course.
Actors involved	Author
Devices/Interfaces	web
Trigger	A quiz is needed for some learning szenarios
Pre-condition	A concept for the test is written
Post-condition	It is possible to assign a quiz to users
Main Success Scenario	The author logs in to the web portal The author call the administration The author click on the menu "e-Testing" (a new window opens with the test generator, the author is automatically logged on in the e-testing tool) The author create a new question pool The author create new categories in the question pool The author create new questions and assign them to the pool and the categories The author define the severity and the score profile to the question The author create a new quiz and define the maximum time and needed score for passing the quiz The author assign questions or whole categories to the quiz . The author is able to open the quiz as a preview (maybe fix som errors or



	make changes) . The author define the publish settings . The author click on publish to LMS (quiz will be automatically published to the learning system, it is now possible to assign the quiz to users)
Alternative Flows	

5.4.1.12 Edit quiz

An author can edit a quiz.

Use Case ID	UC_5.12
Name	Edit quiz
Description	An author can edit a quiz.
Actors involved	Author
Devices/Interfaces	web
Trigger	A quiz was created, some changes are necesary
Pre-condition	The created quiz needs some changes
Post-condition	The quiz is updated in the learning system
Main Success Scenario	The author log in the web portal The author call the administration
	The author click on the menu "e-Testing" (a new window opens with the test generator, the author is automatically logged on in the e-testing tool) The author click on questions The author select the question that must be changed The author change the question The author open the test The author open the test The author define or control the publish settings again The author click on publish to LMS (quiz will be automatically published to the learning system, it is now possible to assign the quiz to users)

5.4.1.13 Remove quiz

An author can remove a quiz.

An author can remove a quiz.	
Use Case ID	UC_5.13
Name	Remove quiz
Description	
Actors involved	Author



Devices/Interfaces	web
Trigger	A demo quiz is not useful anymore (publishe quizes with real users can not be deleted)
Pre-condition	The created quiz must be deleted
Post-condition	The created quiz is deleted
Main Success Scenario	The author log in the web portal The author call the administration The author click on the menu activationlist The author search for all activations for the quiz that should be deleted The author cancel or delete all activations for this quiz The author open the menu learning objects The author search for the quiz that should be deleted The author deaktivate or delete the quiz The author deaktivate or delete the quiz The author click on the menu "e-Testing" (a new window opens with the test generator, the author is automatically logged on in the e-testing tool) The author click on tests The author open the test that must be deleted The author click on "delete" (the questions behind the quiz must be deleted manually)
Alternative Flows	

5.4.1.14 Execute quiz

A CiM user can do a quiz for a certain topic he/she has attended a course.

Use Case ID	UC_5.14
Name	Execute Quiz
Description	The quiz is part of a course or directly assigned to a user. The user is able to open the quiz, answer the questions, and see the result.
Actors involved	Users – volunteers, formal carer, family carer
Devices/Interfaces	web, tablet
Trigger	The quiz is assigned to a user
Pre-condition	There is an activation for minimum one quiz (or course with quiz inside) for the user
Post-condition	The quiz status is passed and the user is able to download a certificate
Main Success Scenario	User call the SITOS system via tablet app or desktop browser User log into system User see the course list direct after log in on the start page User click on the Quiz of interrest or on a course with a quiz inside User answers the question in the quiz User reached the necessary score for passing the quiz User gets a new button with download certificate



	User download the certificate or send the certificate via e-Mail
Alternative Flows	

5.4.1.15 Online questionnaires for evaluation purposes

Following formats for answers and questions should be available:

- Rating scales (3-7 response categories)
- Combination of images and rating scales
- Options single choice
- Multiple answers
- Supplements with numbers or text
- Illustration of questions with images
- Filter questions
- Open questions
- 10 point scale

Use Case ID	UC_5.15
Name	
Description	
Actors involved	
Devices/Interfaces	web, tablet
Trigger	
Pre-condition	
Post-condition	
Main Success Scenario	
Alternative Flows	

5.5 Meta Services

5.5.1 System monitoring

Use Case ID UC_7.2.1.1



Name	System monitoring
Description	Each service in the system presents an interface that provides health information about the service itself and all its subsystems. The system administrato can access this function to get information about the health of the system
Actors involved	Administrator
Devices/Interfaces	Web
Trigger	
Pre-condition	
Post-condition	
Main Success Scenario	The administrator access a overview of all services in the system. The system requests status from all services. The web application presents the status of the services.
Alternative Flows	

5.5.2 Logging

5.5.2.1 Crash reporting

Use Case ID	UC_7.2.2.1
Name	Crash reporting
Description	A user (PEU, formal carer, family member or volunteer) interacts with the system. The interaction results in the crash of a CiM application. This crash is automatically reported.
Actors involved	User (PEU, formal carer, family member, volunteer, administrator)
Devices/Interfaces	Tablet, web portal, fitness device
Trigger	User interacts with the system, the interaction results in an unrecoverable error (crash)
Pre-condition	
Post-condition	User interaction has been registered and the resulting crash has been registered
Main Success Scenario	The user interacts with the system The interaction results in an unrevoverable error



llogs will define and describe the use cases in detail

5.5.2.2 Interaction-Logging: Registration of user interaction

Use Case ID	UC_7.2.2.2
Name	Registration of user interaction
Description	A user (PEU, formal carer, family member or volunteer) interacts with the system. The system automatically registers the interaction.
Actors involved	User (PEU, formal carer, family member, volunteer, administrator)
Devices/Interfaces	Tablet, web portal, fitness device
Trigger	User interacts with the system
Pre-condition	
Post-condition	User interaction has been registered
Main Success Scenario	The user presses a hardware or software button The system registers the interaction
Alternative Flows	

5.5.2.3 Interaction-Logging: Recording of User Interaction

Use Case ID	UC_7.2.2.3
Name	Recording of user interaction
Description	The System continuously records user interaction from every widget the user can interact with.
Actors involved	User (PEU, formal carer, family member, volunteer)
Devices/Interfaces	Tablet, web portal (maybe fitness device)
Trigger	User interaction was registered
Pre-condition	User interaction was registered
Post-condition	User workflow is recorded
Main Success Scenario	The system registered user interaction The system records the button (software or hardware) the user pressed or clicked The system applies meta-data to the button pressed (like user id and device id).



	The system locally cashes the data
Alternative Flows	

5.5.2.4 Interaction-Logging: Interaction data transmission

Use Case ID	UC_7.2.2.4
Name	Interaction data transmission
Description	The system transmits locally cashed data to the server.
Actors involved	
Devices/Interfaces	Tablet, web portal, fitness device
Trigger	The system and is online
Pre-condition	User workflow was recorded
Post-condition	Data is transmitted to the server
Main Success Scenario	The system transmits locally cashed data to the server
Alternative Flows	The system is not online The system stores the data locally until it is online again The system transmits the data to the server

5.5.2.5 Interaction-Logging: Data analyzation – filtering functions

Use Case ID	UC_7.2.2.5
Name	Data analyze – filtering functions
Description	The evaluator would like to filter the interaction data according to the used functions
Actors involved	Evaluator
Devices/Interfaces	Piwik webportal
Trigger	The evaluator clicked on 'filter by function'
Pre-condition	Interaction data is available



Post-condition	A visualization of the filtered interaction data is shown
Main Success Scenario	The evaluator logs in on the Piwik webportal He opens the interaction data analyze He presses 'filter by function' The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator logs in on the Piwik webportal He opens the interaction data analyze The system shows that no data is available Another filter is selected (see UC_7.2.2.6,) The evaluator cancels the analyze

5.5.2.6 Interaction-Logging: Data analyzation – filtering roles

Use Case ID	UC_7.2.2.6
Name	Data analyze – filtering roles
Description	The evaluator would like to filter the interaction data according to the role (PEU, formal carer, family member, volunteer)
Actors involved	Evaluator
Devices/Interfaces	Piwik webportal
Trigger	The evaluator clicked on 'filter by user group
Pre-condition	Interaction data is available
Post-condition	A visualization of the filtered interaction data is shown
Main Success Scenario	The evaluator logs in on the Piwik webportal He opens the interaction data analyze He presses 'filter by user group' The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator logs in on the Piwik webportal He opens the interaction data analyze The system shows that no data is available Another filter is selected (see UC_7.2.2.6,) The evaluator cancels the analyze



5.5.2.7 Interaction-Logging: Data analyzation – filtering age groups

Use Case ID	UC_7.2.2.7
Name	Data analyze – filtering age groups
Description	The evaluator would like to filter the interaction data according to the age group
Actors involved	Evaluator
Devices/Interfaces	Piwik webportal
Trigger	The evaluator clicked on 'filter by age group
Pre-condition	Interaction data is available
Post-condition	A visualization of the filtered interaction data is shown
Main Success Scenario	The evaluator logs in on the Piwik webportal He opens the interaction data analyze He presses 'filter by age group' The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator logs in on the Piwik webportal He opens the interaction data analyze The system shows that no data is available Another filter is selected (see UC_7.2.2.6,) The evaluator cancels the analyze

5.5.2.8 Interaction-Logging: Data analyzation – filtering by gender

Use Case ID	UC_7.2.2.8
Name	Data analyze – filtering by gender
Description	The evaluator would like to filter the interaction data according to gender
Actors involved	Evaluator
Devices/Interfaces	Piwik webportal
Trigger	The evaluator clicked on 'filter by gender'
Pre-condition	Interaction data is available
Post-condition	A visualization of the filtered interaction data is shown



Main Success Scenario	The evaluator logs in on the Piwik webportal He opens the interaction data analyze He presses 'filter by gender' The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator logs in on the Piwik webportal He opens the interaction data analyze The system shows that no data is available Another filter is selected (see UC_7.2.2.6,) The evaluator cancels the analyze

5.5.2.9 Interaction-Logging: Data analyzation – filtering by used devices

Use Case ID	UC_7.2.2.9
Name	Data analyze – filtering used devices
Description	The evaluator would like to filter the interaction data according to the devices the users used
Actors involved	Evaluator
Devices/Interfaces	Piwik webportal
Trigger	The evaluator clicked on 'filter by devices'
Pre-condition	Interaction data is available
Post-condition	A visualization of the filtered interaction data is shown
Main Success Scenario	The evaluator logs in on the Piwik webportal He opens the interaction data analyze He presses 'filter by devices' The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator logs in on the Piwik webportal He opens the interaction data analyze The system shows that no data is available Another filter is selected (see UC_7.2.2.6,) The evaluator cancels the analyze

5.5.2.10 Interaction-Logging: Data analyzation – filtering fitness levels



Use Case ID	UC_7.2.2.10
Name	Data analyze – filtering fitness levels
Description	The evaluator would like to filter the interaction data according to the fitness level of the PEUs
Actors involved	Evaluator
Devices/Interfaces	Piwik webportal
Trigger	The evaluator clicked on 'filter by fitness level'
Pre-condition	Interaction data is available
Post-condition	A visualization of the filtered interaction data is shown
Main Success Scenario	The evaluator logs in on the Piwik webportal He opens the interaction data analyze He presses 'filter by fitness level' The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator logs in on the Piwik webportal He opens the interaction data analyze The system shows that no data is available Another filter is selected (see UC_7.2.2.6,) The evaluator cancels the analyze

5.5.2.11 Interaction-Logging: Data analyzation – filtering by organization

Use Case ID	UC_7.2.2.11
Name	Data analyze – filtering CiM centers
Description	The evaluator would like to filter the interaction data according to the CiM centers
Actors involved	Evaluator
Devices/Interfaces	Piwik webportal
Trigger	The evaluator clicked on 'filter by CiM center'
Pre-condition	Interaction data is available
Post-condition	A visualization of the filtered interaction data is shown
Main Success Scenario	The evaluator logs in on the Piwik webportal He opens the interaction data analyze



	He presses 'filter by CiM center' The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator logs in on the Piwik webportal He opens the interaction data analyze The system shows that no data is available Another filter is selected (see UC_7.2.2.6,) The evaluator cancels the analyze

5.5.2.12 Interaction-Logging: Data analyzation – usage over time

Use Case ID	UC_7.2.2.12
Name	Data analyze – usage over time
Description	The evaluator would like to analyze the interaction data over time
Actors involved	Evaluator
Devices/Interfaces	Piwik webportal
Trigger	The evaluator clicked on 'time overview'
Pre-condition	Interaction data is available
Post-condition	A visualization of the filtered interaction data is shown
Main Success Scenario	The evaluator logs in on the Piwik webportal He opens the interaction data analyze He presses 'time overview' The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator logs in on the Piwik webportal He opens the interaction data analyze The system shows that no data is available Another filter is selected (see UC_7.2.2.6,) The evaluator cancels the analyze

5.5.2.13 Interaction-Logging: Data analyzation – workflows

Cases

Use Case ID	UC_7.2.2.13	
Plattner, S., Sicher, C., W	illner, V., Schneider, C., Rieser, R., Schaffer, W., Dunst, H., 2016, Use	



Name	Data analyze – workflows
Description	The evaluator would like to analyze the interaction according to specific workflows
Actors involved	Evaluator
Devices/Interfaces	Analyzing tool (e.g. Disco)
Trigger	The evaluator opens the analyzing tool
Pre-condition	Interaction data is available
Post-condition	Process diagram is shown
Main Success Scenario	The evaluator opens the analyzing tool He imports the interaction data The process diagram is shown The filtered interaction data are shown
Alternative Flows	No interaction data available The evaluator cancels the analyze